Upper and Lower Mann Lakes Area Structure Plan

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UPPER AND LOWER MANN LAKES

AREA STRUCTURE PLAN

Prepared for:
County of St. Paul No.19

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This document has been prepared for convenience only. The official Bylaw and amendments thereto, which is available from the office of the Municipal Administrator, should be consulted for all purposes of interpretation and application.

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UPPER AND LOWER MANN LAKES
AREA STRUCTURE PLAN

1.0 BACKGROUND INFORMATION

1.1 ORIGIN

Upper and Lower Mann Lakes are two of the more heavily developed lakes in northeastern Alberta. Their central location, their accessibility from Highway 28 and the overall natural beauty of the lake environment have made them a popular recreation and residential area. As the demand for water based recreation increases in Alberta, these lakes could be subject to increased development demands.

However, overdevelopment and uncontrolled use could result in alterations to the lake environment sufficient enough to reduce or destroy the recreation and residential capability of the lakes. Recent problems with lower lake levels, deteriorating water quality, increased aquatic plant growth and summer algal blooms have resulted in substantial lake user complaints.

Recognizing that any reduction in the quality of the natural environment threatens the enjoyment of the lakes and their potential for future recreational use, the County of St. Paul requested Alberta Municipal Affairs to assist in the preparation of an area structure plan for Upper and Lower Mann Lakes.

The first step in the development of an area structure plan involved the preparation of the Upper and Lower Mann Lakes, Background Study: 1989. Contained in this Study is a complete inventory of the local and regional geographical and biological resources, existing land uses and an overall assessment of the development constraints and capabilities associated with each lake. The Background Study provides the information neccessary for the development of an appropriate area structure plan.

1.2 PURPOSE

The purpose of the area structure plan is to develop lake planning policies and provisions which will protect the lake environment and enhance future recreation opportunities. This plan consists of lake planning goals and objectives and development policies and guidelines.

2.0 AREA STRUCTURE PLAN: GOALS AND OBJECTIVES

Lake planning goals and objectives were identified through analysis of the Background Study and discussions with the County of St. Paul, concerned land owners and government agencies. They addressed as many of the planning constraints and issues and concerns as possible and provided the foundation for the development of the lake planning policies and provisions found in the Area Structure Plan (ASP).

2.1 GOALS

1. Upper and Lower Mann Lakes have been identified as serving the recreational demands of the local and regional population. The ASP should recognize this role and ensure that the recreation environment is maintained and, where possible, improved.

2. The ASP shall reflect the key lake planning issues and the critical limiting factors associated with them. Where possible, lake rejeuvenation shall be encouraged.

3. The ASP should maintain the viability of existing development while recognizing the opportunities for future use.

4. The ASP shall provide for the best use of the lakes without imposing financial limitations on the County of St. Paul or restricting the policies governing the use of Crown land.

5. The ASP shall establish a future direction for land/lake use and development and provide policies governing existing use.

2.2 OBJECTIVES

1. To ensure that future development on existing lots does not result in contamination of the lake through shoreline disturbances, inadequately located buildings or improperly treated sewage.

2. To ensure that no development or disturbance occurs within the area of the south watershed as identified in the Background Study.

3. To ensure that no development or disturbance occurs within the areas of fish and wildlife habitats identified in the Background Study.

4. To ensure that additional recreational or residential development does not exceed user capacity or create boating congestion.

5. To improve water quality and reduce emergent and submergent aquatic plant growth.

6. To improve the quality of the sport fishery.

7. To ensure that no further lake use or development occurs which would lead to a deterioration of the lakeshore, backshore environment or lake water quality.

2.3 KEY PLANNING ISSUES

During the preparation of the Background Study, key planning issues were identified. These issues are summarized below along with the associated development limitation factors.

Key Planning Issue	Development Limiting Factors
· Declining lake levels	-restricted watershed and drainage system -annual rainfall levels lower than average -limited ground water supplies
· Excessive aquatic plant growth and summer algal blooms	-levels of nutrients in lake are naturally high -cattle have unrestricted access to lakes in the winter and summer -poor local soil fertility requires increased chemical fertilization -steep shoreline topography increases erosion and sedimentation -declining lake levels, poor drainage, slow flushing period and irregular shoreline result in lake eutrophication
· Deteriorating water quality	-lakes are classified as hyper-eutrophic -increased aquatic plant growth/ summer algal blooms -poor drainage/slow flushing periods -fish winter kill -lake odor and poor clarity due to sedementation and algal bloom
· Overdevelopment	-lake uses is currently at an acceptable level but over half of available lots are currently undeveloped -development capacity would be exceeded as undeveloped lots are utilized -further residential subdivision approvals would increase potential for overdevelopment

· Fish and Wildlife	-poor water quality, low lake levels and excessive aquatic plant growth have greatly reduced fish stocks -excessive ice fishing deletes populations -habitat protection required from cattle and human activities

The key planning issues and associated critical limiting factors to development play an important role in preparation of an appropriate ASP.

4.0 AREA STRUCTURE PLAN: POLICIES AND PROVISIONS

The policies and provisions which follow are the means and mechanisms by which the Area Structure Plan: Goals and Objectives may be achieved. They represent specific actions, and development requirements and standards.

4.1 ISSUE 1. DECLINING LAKE LEVELS

Issue: Declining lake levels are reducing the attractiveness of the area as well as creating problems of fish winter kill, exposed beach areas and excessive aquatic plant growth.

Policies:

1. No residential or recreational development should be permitted within the area of the south watershed as defined in the Background Study. This area is considered critical to the drainage systems of both Upper and Lower Mann lakes.

2. Notwithstanding, a farmstead or single lot country residential subdivision may occur in accordance with the existing Land Use Bylaw.

3. No development shall be permitted within 30 meters of the north outflow drainage channel.

4. Notwithstanding the above, low intensity, passive environmental impact recreation uses (skiing/hiking trails, nature observation facilities, etc.) may be permitted throughout the southern watershed.

4.2 ISSUE 2. AQUATIC PLANT GROWTH

Issue: Upper and Lower Mann Lakes are congested with extensive emergent and submergent aquatic plant growth as well as a dense summer algal bloom. The plant growth is the result of excessive amounts of nutrients in the water.

Policies:

1. No new development shall be permitted within 30 metres of the lakes' high water mark.

2. All development shall receive approval from Alberta Labour and the local health unit for sewage system installation.

3. No vegetation shall be removed within 30 metres of the lakes' high water mark.

4. No commercial feedlots shall be permitted within the planning area.

5. The depositing of livestock manure on lake ice, by farm livestock being watered on the ice, is illegal under provincial and federal regulations. To minimize the amount of harmful nutrients (manure) entering the lakes, the County shall assist with reporting such incidents to appropriate provincial/federal agencies.

6. The County shall be encouraged to investigate possible methods to control and reduce the shoreline aquatic plant growth.

4.3 ISSUE 3. DETERIORATING WATER QUALITY

Issue: Excessive amounts of nutrients in the waters of both lakes has resulted in the lakes being classed as hyper-eutrophic. This indicates excessive aquatic plant growth, declining fish stocks, murky water and an overall deterioration of recreational and residential capabilities.

Policies:

1. The County of St. Paul shall request Alberta Environment to undertake a review of the possible solution to achieve lake rejeuvenation.

2. The County shall recommend to Alberta Forestry, Lands & Wildlife that all Crown lands located within the planning area be withheld from tree removal and recreational or grazing disposition. Low intensity, low environmental impact recreation uses (eg. skiing/hiking trails, nature observation activities) however, could be permitted.

3. Changes in lake trophic status need to be monitored. The County shall approach Alberta Environment with a request to have water quality survey updates undertaken at the lakes at yearly intervals.

4. The clearing of vegetation on lots shall be minimal in order to maintain aesthetic and visual buffers from neighbouring properties and to reduce soil erosion and nutrient runoff into the lakes. A site plan detailing the protection of treed areas shall accompany any application for a development permit.

5. Vegetation clearing and tree removal shall not be permitted within 30 metres of the shoreline to minimize the potential for soil erosion and nutrient runoff into the Lakes.

6. Notwithstanding the above, residential property owners may hand cut a pathway to the lakeshore provided that it does not exceed 6 metres in width.

4.4 ISSUE 4. OVERDEVELOPMENT

Issue: Only half of the existing residential lots on both lakes have been developed. Residential use however, could double without further subdivision as existing lots are developed.

Policies:

1. No additional residential subdivisions shall be permitted within the planning area. Notwithstanding, farmstead and single lot residential subdivision may be permitted in accordance with the County of St. Paul Land Use Bylaw.

2. Development on existing lots will be permitted providing it meets all provisions of the Land Use Bylaw and the ASP.

3. No commercial or industrial development shall be permitted within the planning area.

4. Expansion within existing residential or recreation development areas shall not be permitted in order to avoid increasing the density of existing uses.

5. Resubdivision of existing lots within the Hamlet of Bayview Beach should not be permitted until such time as a municpal water and sewer system has been installed.

6. Low intensity, low environmental impact recreation uses (ie. skiing/hiking trails, nature observation activities) may be permitted.

4.5 ISSUE 5. DECLINING SPORT FISHERY

Issue: As the water quality deteriorates and aquatic plant growth continues unabated, the amount of oxygen available in the water decreases. The result is severe winterkill and depleted fish stocks.

Policies:

1. No development shall be permitted within those areas identified in the Background Study as sensitive fish spawning or habitat areas.

2. The impacts of sport fishing pressure at the Mann lakes need to be monitored. The County of St. Paul shall approach Alberta Forestry, Lands and Wildlife and/or the local Fish and Game Association with a request to have a creel census undertaken at the lake, at appropriate intervals in the future.

3. Alberta Forestry, Lands and Wildlife shall be requested by the County of St. Paul to take appropriate action to ensure a high quality sports fishery. These actions could include fish stocking programs, limits on fish catches (including size limits, or closures on certain species), or special limits on the length of the fishing season or a limited ban on winter fishing.

5.0 LAND USE AREAS

Map 1 outlines the future land use allocation for Upper and Lower Mann Lakes. This reflects the goals and objectives of the plan and the development capabilities and limitations for each lake. The critical components of the land use areas are:

1. Both Upper and Lower Mann lakes are considered to be in a deteriorating environmental state. Therefore no further residential subdivisions or intensive recreational developments should be permitted within the planning area.

2. Existing development could double should all registered lots be utilized. Therefore no resubdivision of existing lots should be permitted.

3. Aquatic plant growth and declining water quality are greatly affecting the recreational use of the lake. Development controls are required to prevent further deterioration of the environment.

4. Fish stocks are declining and development controls are necessary to protect habitat and spawning areas.

Each of the land use areas has a stated purpose which is reflected by policy statements on future land use and development.

5.1 RESIDENTIAL AREA

The purpose of this area is to recognize registered multi-lot residential subdivisions. It is the intention of the County to maintain and protect the residential environment and to limit shoreline disturbance by uncontrolled development.

Policies:

1. The predominant uses of this area shall be detached single-family dwellings, including Canadian Standards Association approved mobile homes anchored on suitable foundations, and ancillary buildings and uses. Within municipal reserve areas, public recreation facilities such as tennis courts, picnic grounds, lake access points and community halls may be permitted providing these uses are compatible with the residential development.

2. Development of substandard lots registered prior to the adoption of the County Land Use Bylaw #1146 will be considered by the County provided they meet the health regulations for sewage disposal.

3. Recreational uses and facilities may be permitted, provided that the County is satisfied the proposal will not have detrimental effects on the lake environment.

4. Public and institutional facilities may be permitted provided they are compatible with existing land uses and will not have a detrimental effect on the lake environment.

5. All lots/parcels shall be large enough to support the required on - site water supply and sewage disposal systems. Sewage disposal systems must be approved by Alberta Labour, Plumbing Inspection Branch. Domestic water intake lines from the lake require approval from Forestry, Lands and Wildlife, Alberta Environment and from the County.

6. The County shall periodically evaluate the sewage disposal situation. In locations where the sewage disposal systems may have caused a nuisance or appear to pose a health problem, the County shall request the Northeast Alberta Health Unit to investigate with a view to requiring corrective measures under the Public Health Act.

7. All development shall comply with those policies in Sections 4 and 6.

5.2 RURAL CONSERVATION AREA

The purpose of this area is to identify those lands with limited development capability. The emphasis is placed on maintaining these lands for agricultural purposes.

Policies

1. The predominant uses of such areas shall be for extensive agriculture and farm related uses, forestry, and natural areas. Intensive agricultural activities such as tree nurseries, apiaries which can be shown to cause no significant increase in noise, pollution or odour and would not adversely affect the lake and its environs, may be permitted.

2. The subdivision of one residential lot from each previously unsubdivided quarter section may be permitted in accordance with the Land Use Bylaw.

3. All development shall comply with those policies outlined in Sections 4 and 6.

4. Transportation, communications and public and institutional facilities may be permitted.

5.3 RECREATIONAL AREA

The purpose of this area is to recognize existing intensive recreational development. The Provincial Recreation Area at Lower Mann Lake is included in this area and allows for the development/utilization of this facility in a manner which supports a high quality recreation experience.

Policies

1. The preferred uses of such areas shall be for high intensity public and private oriented recreation uses such as campgrounds, day use areas and boat launches. Other recreation uses such as tennis courts, lake access points, playgrounds, community halls may be permitted providing they are compatible with the preferred uses. Any proposed recreation development shall not significantly affect the lake and its environs, including important fish and wildlife habitats.

2. In addition to the above, intensive recreation uses such as golf courses, institutional or public uses, marinas, and rental accomodations may be permitted.

3. Development applications for recreation uses shall be accompanied by a report outlining the compatibility of the proposed use with the development and resource capability of the lake, the surrounding land use and potential impact on the lake environment.

4. Access to recreation areas shall be suitably located so as not to create traffic hazards. Adequate, and clearly marked on-site parking areas shall also be required.

5. All development shall comply with those policies outlined in Sections 4 and 6.

5.4 ENVIRONMENTAL PROTECTION AREA

The purpose of this area is to protect those lands having severe development limitations. The emphasis is placed on restricting activities which may have a negative impact on the surrounding environment. Sensitive fish habitats, areas of significant shoreline aquatic growth, poor soil and topographic characteristics and areas important to the watershed are included.

Policies

1. The preferred uses include: skiing/hiking trails, nature observation activities, outdoor education facilities and wilderness camping. Such development shall not include any permanent facilities or result in any negative impact on the lake environment.

2. Transportation, communications, public and institutional facilities, which can be demonstrated to cause no adverse impacts on the predominant uses, may also be permitted.

3. Developments on these lands shall not contribute to a reduction in either the environmental quality of the planning area, including the quality of the lake and its shoreline, nor the important fish and wildlife habitats.

4. The subdivision of one residential lot from each previously unsubdivided quarter section may be permitted in accordance with the Land Use Bylaw.

5. All development shall comply with those policies outlined in sections 4 and 6.

6.0 GENERAL LAKE MANAGEMENT POLICIES

The County of St. Paul wishes to preserve the Mann Lakes planning area as an attractive and regionally significant recreational and residential environment. It is the intent of the County to ensure future development opportunities exist at the Mann Lakes for residents and visitors alike. The following general management policies are adopted to maintain and where possible enhance the natural resources and lake environment for both Lakes. Emphasis is placed on controlling uses or activities which would negatively impact the lake environment.

6.1 DEVELOPMENT

1. The creation of new lots by re-subdivision or infilling will not be permitted.

2. Only one single family dwelling shall be permitted on each lot, except as provided for under the Planning Act. Guest houses shall not be permitted as they would constitute additional dwelling units. Multi-family development (ie. condominiums, townhouses, duplexes) shall not be allowed.

3. Not more than two (2) recreational vehicles will be permitted on each lot. The year-round placement of one recreational vehicle on a residential lot is permitted as a residential development. An additional recreational vehicle is only permitted for a period not to exceed 15 days. A development permit is required for the time limit to be extended.

4. All new developments shall be required to install sewage disposal systems which have been approved by the authority having jurisdiction. The use of a leaching pit or cesspool for kitchen sink waste/grey water disposal is strongly discouraged.

5. No commercial or industrial development shall be permitted within the planning area.

6. Any development or structure proposed on the bed or shore of the lake shall be required to obtain authorization from Alberta Forestry, Lands and Wildlife; a water resources permit from Alberta Environment; and, a development permit from the local municipality. Removable domestic piers or boat lifts do not require authorization from Alberta Forestry, Lands and Wildlife.

7. Development on Crown lands should be prohibited to protect the fish and wildlife habitats.

6.2 ENVIRONMENT

1. The clearing of vegetation, site landscaping or the physical alteration of the shoreline should be minimized in order to reduce soil erosion and nutrient run off into the lake. Except for limited brushing or thinning of vegetation, development permit applications shall include a site plan detailing the protection of treed areas and the shoreline,

2. A treed/vegetation buffer at least 30 metres wide should be maintained between agricultural lands and the lake shoreline.

3. A treed/vegetation buffer at least 30 metres wide shall be maintained between any structural development and the lake shoreline. Appropriate allowances may be made for existing undeveloped lots and for re-development of existing lots where this restriction may prohibit dwelling construction.

4. The County of St. Paul shall request Alberta Forestry, Lands and Wildlife to investigate methods of minimizing shoreline disturbance and nutrient loading associated with cattle grazing activity on Crown land, utilizing inputs from the existing lease/permit holders, municipal officials, and other local interested parties.

5. The depositing of livestock manure on lake ice, by farm livestock being watered on the ice, is illegal under provincial and federal regulations. To minimize the amount of harmful nutrients (manure) entering the lake, the municipalities should assist with reporting such incidents to appropriate provincial/federal agencies.

6. The County shall request the local health unit to investigate situations where existing sewage disposal systems may become injurious or dangerous to public health. If required, corrective measures should be undertaken in accordance with the Public Health Act.

7. Alterations to the bed and shores of the lake shall not be undertaken without the necessary authorization and permits from the authority having jurisdiction.

8. The County, upon request from area residents, shall apply to the Alberta Boating Regulation Review Committee for the imposition of appropriate boating regulations in specific locations of the lake.

9. Upon receiving the approvals from the Alberta Boating Regulation Review Committee, the municipality shall post and maintain signs in appropriate locations informing the public of boating regulations in place.

10. The municipality, where possible, shall require the location of the new boat launch facilities to be away from, or at the perimeter of, public beach or swimming areas.

11. The islands on the lake shall remain in their present natural state.

12. Where possible, natural vegetative covers shall be maintained within the proximity of important fish and wildlife habitats.

13. The County shall encourage Alberta Energy and Natural Resources to post important fish and wildlife habitats as natural areas.

14. The County shall request Alberta Environment to monitor nutrient flow into the lakes and to undertake a water quality study with respect to controlling the aquatic plant growth and reducing eutrophication.

6.3 MUNICIPAL SERVICING

1. The County may consider the clearing, posting and maintenance of walkways within existing suitable shoreland reserves to improve access to the lake for backlot property owners and the public. The development, clearing and posting of reserves shall be the responsibility of the County.

2. Establishment of a cottage and property owner associations should be considered in order to distribute maintenance duties among residents, (e.g. engage in a weekly beach clean-up program, keeping public reserves tidy, and to notify the County of any perceived problems).

3. The municipality may consult with the local public health unit in an effort to provide a suitable site for disposal of sewage from sewage holding tanks.

4. The municipality shall attempt to ensure that local access roads are gravelled and maintained.

5. No sanitary landfill sites shall be allowed in the planning area.

7.0. IMPLEMENTATION AND ADMINISTRATION

7.1 AUTHORITY OF THE PLAN

1. Pursuant to the provisions of the Planning Act, R.S.A. 1980, and amendments thereto, this plan shall be adopted as The Upper and Lower Mann Lakes Area Structure Plan.

2. Subdivision, development and re-development of lands within the planning area shall be in accordance with the provisions of this Plan.

3. The County of St. Paul shall encourage the Provincial and Federal governments to have regard for the provisions of this Plan in the development and re-development of Crown Lands, and in the formulation of Provincial and Federal policies and programs within the planning area.

7.2 LAND USE BYLAW

1. Any proposed subdivision or development shall be required to comply with the provisions of this Plan as well as any provisions set forth in the County of St. Paul Land Use Bylaw No.1146.

2. In order to allow for the logical progression and proper timing of development, development may be staged (via subject site re-designation) through the use of the Land Use Bylaw No.1146.

7.3 PLAN REVIEW AND AMENDMENT

1. Council may amend this Plan at any time to incorporate new issues, goals, objectives and policies. Council may establish a lake plan review committee for the purposes or reviewing and evaluating the effectiveness of this Plan on an annual basis and where necessary make recommendations to Council on needed changes and amendments.

2. Council shall refer any proposed amendments to the concerned provincial agencies including Alberta Municipal Affairs, for review and comment.

3. Council may consult with the residents within the planning area, prior to adopting any amendment to this Plan.

4. Amendments shall be adopted as amendments to the Upper and Lower Mann Lakes Area Structure Plan.

7.4 INTERPRETATION

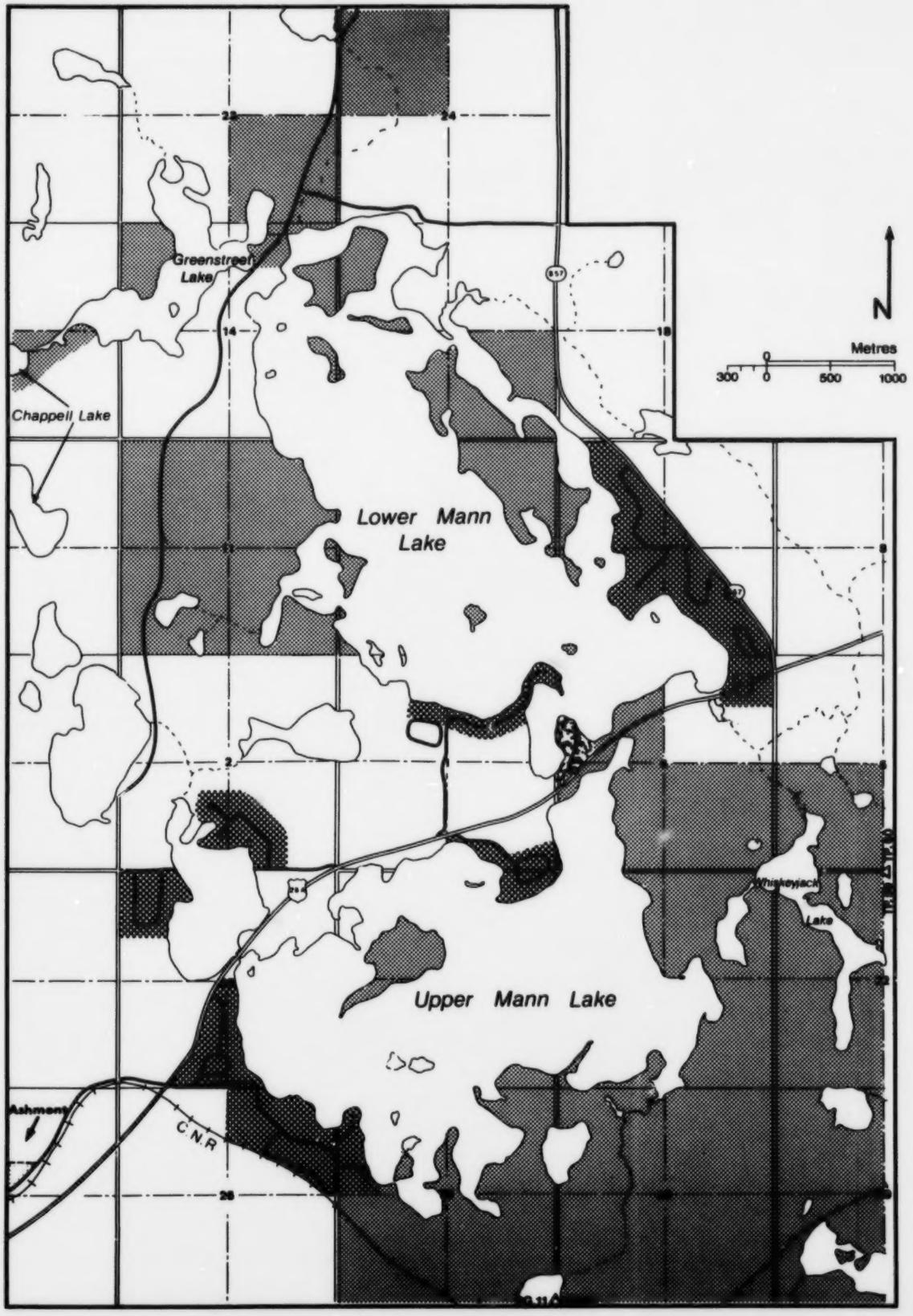
1. The examples of uses cited for each land use area are intended to illustrate the range of activities possible.

2. In order to provide for flexibility in the interpretation, land use designation boundaries may be considered to be approximate, except where such land use boundaries coincide with roads, quarter section lines, registered plans of subdivision, valleys, streams, rivers, or other clearly recognizable physical features. Minor deviation may be permitted without amendment to this Plan, provided that such deviations do not alter the intent of this Plan.

3. Definitions and requirements of the County of St. Paul Land Use Bylaw No. 1146 and the Planning Act, R.S.A. 1980, shall be used accordingly and within the respective administrative jurisdictions in the interpretation of this Plan.

AREA STRUCTURE PLAN
UPPER & LOWER MANN LAKES

MAP 1
LAND USE AREAS



- Residential Area
- Rural Conservation Area
- Recreation Area
- Environmental Protection Area